

A TAXONOMIC STUDY ON THE GENUS PSEUDOEOSCYLLINA (ORTHOPTERA, ACRIDIDAE) FROM CHINA

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Abstract The genus *Pseudoeoscyllina* Liang et Jia from China is reviewed, and *Pseudoeoscyllina brevipennis* sp. nov. is described. Key to species of *Pseudoeoscyllina* from China is provided. Type specimens are deposited in the Institute of Zoology, Shaanxi Normal University.

Key words Orthoptera, Acrididae, new species, China.

The genus *Pseudoeoscyllina* was erected by Liang et Jia in 1992. So far, the genus includes 3 species, which are distributed in Innermongolia, Sinkiang, Guangxi and Heilongjiang of China. This paper reports one new species, namely *Pseudoeoscyllina brevipennis* sp. nov. Type specimens are preserved in the Insect Collection of the Institute of Zoology, Shaanxi Normal University, Xian, China.

Pseudoeoscyllina Liang et Jia, 1992

Pseudoeoscyllina Liang et Jia, 1992. Acta Scien. Nat. Univer. Sunyaseui, 1992; Zheng, 1993. Acritaxonomy; Jiang and Zheng, 1998. Grasshoppers and locusts from Guangxi; Yin et Xia, 2003. Fauna Sinica, Insecta, V. 32. Orthoptera Acridoidea, Gomphoceridae and Acrididae. Type species: *Pseudoeoscyllina longicornia* Liang et Jia

Body moderate to small. Anterior margin of vertex right angle, lateral keels distinct, frons oblique, frontal ridge with longitudinal sulcus; faveda rectangular.

Antennae narrow ensiform, beyond posterior margin of pronotum. Eyes long oval. Lateral keel of pronotum comparatively straight, posterior transverse sulcus at middle part of pronotum, posterior margin obtuse angular. Metasternum lobes contiguous. Elytra and hind wings developed, not reaching or beyond apex of hind femur, lower carina of inner side of hind femur with a line of stridulatory pegs, apex of knee lobe round. Lower spurs of inner side of hind tibia slightly longer than upper spurs. Length of the first segment of posterior tarsus nearly equal to the third. Male epiproct triangular. Cercus trochiformis. Subgenital plate short, conical. Female valvae short and thick, upper margin without tiny teeth. Length of subgenital plate longer than its width.

Key to species of *Pseudoeoscyllina* Liang et Jia from China

- 1 (4) Frontal ridge with longitudinal sulcus entirely. Length of middle segment of antennae 2.0-2.2 times its width. Lateral keels of pronotum curved slightly in prozona
- 2 (3) Lateral margins of frontal ridge straight. Vertical diameter of eyes is 1.42 times of transversal diameter, and 1.87 times of subocular groove. Elytra surpassing the top of hind femur
..... *Pseudoeoscyllina longicornia* Liang et Jia

- 3 (2) Lateral margins of frontal ridge distinctly constricted above median ocellus. Vertical diameter of eyes is 2 times of transversal diameter, and 1.2 times of length of subocular groove. Elytra only reaching the middle of hind femur
..... *Pseudoeoscyllina brevipennis* sp. nov.
- 4 (1) Frontal ridge with longitudinal sulcus below the antennae. Lateral keels of pronotum straight in prozona
- 5 (6) Frontal ridge with longitudinal sulcus above the median ocellus to clypeus. Vertical diameter of eyes is 1.47 times of subocular groove in length. Hind tibia yellowish brown
..... *Pseudoeoscyllina xinjiangensis* Zheng et Yang
- 6 (5) Frontal ridge with longitudinal sulcus under the median ocellus to clypeus. Vertical diameter of eyes is 2.5 times of subocular groove in length. Hind tibia red
..... *Pseudoeoscyllina rufitibialis* (Li et Lin)

1 *Pseudoeoscyllina longicornia* Liang et Jia, 1992

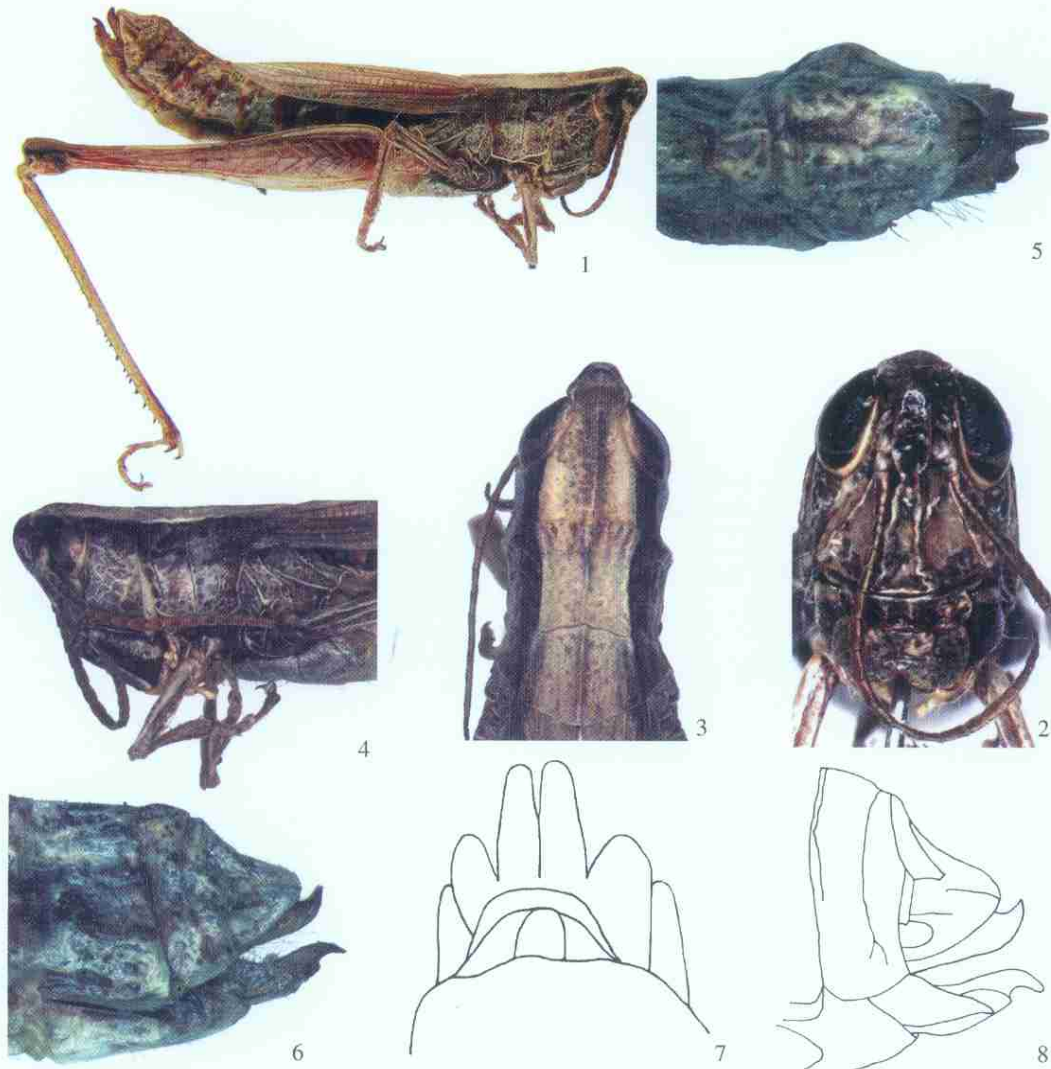
Pseudoeoscyllina longicornia Liang et Jia, 1992. Acta Scien. Nat. Univer. Sunyaseui; Zheng 1993. Acritaxonomy; Yin and Xia, 2003. Fauna Sinica, Insecta, V. 32. Orthoptera Acridoidea, Gomphoceridae and Acrididae.

Material examined. 2 ♂♂, 20 July 2007. Xinbaerhuzuoqi, Inner Mongolia.

Distribution. Ké'eqinyouyiqianqi of Innermongolia.

2 *Pseudoeoscyllina brevipennis* sp. nov. (Figs. 1-8)

Female. Body moderate. Head comparatively large, shorter than pronotum; vertex slightly wide and flat, anterior margin nearly right angle. Lateral keels distinct, vertex with median keel, extending to occiput; faveda rectangular, the length 3 times as its width; vertex and frons forming acute angle in profile, frons oblique, lateral margins of frontal ridge distinctly constricted above median ocellus, lower part widened downward, until labrum base. Frontal ridge with longitudinal sulcus throughout. Antennae narrow ensiform, the 3rd to 6th segments wide and flat, other segments cylindrical. Eyes oblong oval, longitudinal diameter of eyes 2 times horizontal diameter, and 1.2 times subocular furrow. Disc of pronotum nearly flat, anterior margin straight, posterior margin obtuse rounded; median and lateral keels distinct, the later slightly arced in prozona, and



Figs. 1-8. *Pseudoeosyllina braiipennis* sp. nov. 1. Body of female, lateral view. 2. Head, frontal view. 3. Head and pronotum, dorsal view. 4. Head and pronotum, lateral view. 5. Female terminalia, dorsal view. 6. Female terminalia, lateral view. 7. Female terminalia, dorsal view. 8. Female terminalia, lateral view.

slightly broaden in metazona; posterior sulcus situated nearly middle part of pronotum, prozona slightly longer than metazona (the former 1.05 times the latter in length), width of pronotum lateral lobe slightly longer than its length, anterior lower angles obtuse angular, posterior lower angles right angular. Width of mesosternum lobes longer than its length, inner margin curved, interspace of mesosternum lobes nearly square. Metasternum lobes divided. Tegmen shortened, reaching to the middle part of hind femur, with sharply rounded apex, apical of precostal area reaching to $\frac{2}{3}$ of tegmen anterior ridge, intercalary vein of medial area present, medial area slightly longer than cubital area and costal area. Hind femur slender, length of hind femur 6.5 times its width, ventral knee lobes with rounded apex. Outer side of hind tibia with 12 spines, inner side 11

spines, outer apical spines absent. The first tarsus equal to the second and the third in length. Arolium larger, nearly reaching to the tip of claw. Epiproct triangular, tip wide and rounded, with a widely longitudinal groove on the middle part of anal plate. Cerci short and pyramidal. Valuviae thick and short, outer margin smooth, apex hook like. Length of subgenital plate longer than its width, posterior margin with triangular protuberance on the middle part.

Body dust color, with black postocular band, lateral carinae of pronotum white, upper half of lateral lobe with black longitudinal band, tegmen brown, hind femur yellowish brown, upper knee lobes black, hind tibia yellowish brown.

Male: unknown.

♀. Measurement (mm): body 19-20, pronotum

3. 5-4. 0, tegmen 8. 0-8. 5, hind femur 12. 5-13. 0.
Holotype ♀, 27 Aug. 2007, Beian (48°2' N, 126°5' E), Heilongjiang; coll. SUN Hui Min ect. Paratype 1 ♀, same data as hdotype.

This new species is allied to *Pseudoeoscyllina longicorna* Liang et Jia, 1992, but can be separated from the latter by the characters listed in Table 1.

Table 1. Difference between *Pseudoeoscyllina brevipennis* sp. nov. and *Pseudoeoscyllina longicorna*.

<i>P. longicorna</i>	<i>P. brevipennis</i> sp. nov.
Lateral margin of frontal ridge	Distinctly constricted above median ocellus
Vertical diameter of eyes 1.87 times larger than length of subocular groove	1.2 times
Tegmina surpassing the top of hind femur	Reaching the middle of hind femur

Etymology. The specific name is derived from the Latin “*brev*” and “*pennis*”.

3 *Pseudoeoscyllina xinjiangensis* Zheng et Yang, 2006
Pseudoeoscyllina xinjiangensis Zheng et Yang, 2006. *Sichuan Journal of Zoology*.

Material examined: 1 ♀, 7 Aug. 2005, Haba River of Xinjiang; 2 ♀ ♀, 25 July 2005, Thermalspring of Xinjiang.

中国拟埃蝗属分类研究 (直翅目, 剑角蝗科)

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摘 要 记述分布于我国拟埃蝗属 3 种, 记述 1 新种, 即短翅拟埃蝗 *Pseudoeoscyllina brevipennis* sp. nov., 附有分种检索表和种类分布情况, 模式标本保存于陕西师范大学动物研究所昆虫标本室。

短翅拟埃蝗, 新种 *Pseudoeoscyllina brevipennis* sp. nov. (图 1 ~ 8)

新种与长角拟埃蝗 *Pseudoeoscyllina longicorna* Liang et Jia,

关键词 直翅目, 剑角蝗科, 新种, 中国.
中图分类号 Q969. 26

Distribution. Widespread in Xinjiang.

4 *Pseudoeoscyllina rufitibialis* (Li et Lin), 1985
Eoscyllina rufitibialis Li et Lin, 1985. *Entomdaxonomia*.
Pseudoeoscyllina rufitibialis (Li et Lin), Zheng, 1993. *Acritaxonoary*; Jiang and Zheng, 1998. Grasshoppers and locusts from Guangxi.

Material examined. According to references.
Distribution. Leye County of Guangxi.

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1992 的主要区别: 前者颜面隆起侧缘在中央单眼之上明显收缩, 后者直; 前者复眼纵径为眼下沟长的 1.2 倍, 后者为 1.87 倍; 前者前翅到达后足股节中部, 后者超过后足股节顶端。

正模♀, 黑龙江北安, 2007-08-27; 副模 1♀, 同正模, 孙慧敏等采。

词源: 种名以拉丁字 *brev* 及 *pennis* 为名。